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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/501,247 | 07/12/2004 | Detlev Neuland | 01/090LTS | 5234 |
| 7590 02/03/2009 | | | EXAMINER | |
| Propat 425-C South Sharon Amity Road Charlotte, NC 28211-2841 | | | HELM, CARALYNNE E | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/501,247 | Applicant(s) NEULAND ET AL. | |
| | Examiner CARALYNNE HELM | Art Unit 1615 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 21, 2008 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully considered and analyzed in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hijiya et al. (US Patent No. 4,562,020) in view of Goldsworthy et al. (US Patent No. 4,079,106), Satchwell et al. (US PGPub No. 2003/0228196), and Wimberger et al. (previously cited).

Hijiya et al. teach the method of making an edible pullulan or elsinan film produced from an aqueous solution that also contains an active (e.g. seasoning, antibiotic, protein, fat, biologically active substance, etc.) (see column 3 lines 5-40, claims 1-2 and 10; instant claims 1, 5-6). Hijiya et al. teach that the film is made by the application of this aqueous solution to a continuous belt made of plastic (polymer) that is then dried into a film and peeled from the belt surface (see column 32-44; instant claim 3). The belt is passed through a regeneration region before returning back to the beginning of the coating process (see column 2 lines 42-44). Hijiya et al. do not teach the decontamination of the belt.

Goldsworthy et al. teach a process of making a polymer containing article wherein the liquid/molten form of the polymer is applied to the surface of a belt (see

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column 2 lines 25-28). The material is allowed to cure/dry and is then removed from the belt (see column 2 lines 39-42). Goldsworthy et al. then teach the cleaning of the belt with heat (thermal treatment) and its subsequent return to the initial portion of the machine for use in the process again (e.g. continuous belt) (see column 2 lines 43-47; instant claim 7). Since applicant has not defined how much residual contaminant corresponds to removal of “essentially all of the contaminants”, the cleaning process taught by Goldsworthy et al. is interpreted as removing “essentially all of the contaminants”. The contamination left on the belt from the polymer melt//liquid would penetrate this carrier on at least a molecular level (e.g. since material from the polymer adheres to the belt such that it would need to be removed prior to the belt’s reuse, at least one portion of a molecule of material from the polymer matrix would reach beneath/penetrate the upper most surface of the molecules constructing the belt). Although not explicitly taught by Goldsworthy et al, it is commonly known that any cleaning methodology requires the disposal of the waste material removed from the cleaned item. In the case of thermal cleaning, the waste material is, at least in part, in gaseous form.

Wimberger et al. teach a process where a paper web (carrier) is passed through a thermal treatment zone (dryer/drying tunnel) such that a surface contaminant (solvent) is removed via a thermal treatment and fed to an afterburner via a fan (controlled air circulation) (see column 1 lines 50-59, column 2 lines 66-68; instant claims 1 and 3). The temperature of the air supplied to the dryer is taught to be 350°F±150°F (see column 6 lines 6-7). This teaching indicates that 200°F (93°C) is within the envisioned temperature range and corresponds to “approximately 80°C” (see instant claim 1). In

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addition, Satchwell et al. teach that the use of low temperature thermal treatment to remove or desorb undesired materials from a matrix was known at the time of the invention (see paragraph 19). In particular, Satchwell teaches that such a process can occur at 90°C, which is also interpreted to correspond to “approximately 80°C”.

Since the process taught by Hijiya et al., like Goldsworthy et al, applies a liquid/uncured polymer to belt in order to dry/cure, it follows that their process would also result in residual material from the polymer construct being left behind and requires removal/cleaning. Hijiya et al. envisions regeneration (e.g. in their regeneration of the corona layer on their belt) of the belt between coating passes, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to remove essentially all the contaminants from the continuous belt using thermal treatment of approximately 80°C in a drying tunnel before being coated again. In addition, since disposal of the removed material would be required, directing the gaseous matter to an afterburner via controlled air circulation would also be obvious to one of ordinary skill in view of the teachings of Wimberger et al. Hijiya et al. in view of Goldsworthy et al, Satchwell et al., and Wimberger et al. does not explicitly teach the time for the removal of essentially all of the undesired material, however, depending upon the volatility of the contaminant, it would have been well within the purview of one of ordinary skill in the art to optimize such a parameter as a matter of routine experimentation. Therefore claims 1, 3, and 5-7 are obvious over Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al.

Response to Arguments

Applicant's arguments submitted November 21, 2008 with respect to claims 1, 3, and 5-7 have been considered but are moot in view of the new ground(s) of rejection.

Two arguments regarding the previously cited references that could still be raised are addressed below:

- 1) Applicant argues that 93°C does not correspond to “approximately 80°C”. The specification provides no guidance as to amount of variation that is permitted by the recitation of the term “approximately”. Thus a reasonable broad interpretation of “approximately 80°C” would include 93°C.
- 2) Applicant argues that one of ordinary skill in the art would not recognize dwell time in a heated environment as a result effective variable in removing contaminants from a carrier material. The heating of materials to remove undesired contaminants can result in vaporization or pyrolysis of the contaminant. Since compounds/contaminants are well known to have a particular melting/pyrolysis temperature as well as vaporization/sublimation temperature it would be appreciated by one of ordinary skill that the temperature of a carrier with a contaminant determines how quickly that contaminant is vaporized/sublimed/burned. A similar principle is associated with water on a heated surface vaporizing faster than when at ambient conditions.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is (571)270-3506. The examiner can normally be reached on Monday through Thursday 8-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caralynne Helm/
Examiner, Art Unit 1615

/Tracy Vivlemore/
Primary Examiner, Art Unit 1635